Sandia National Laboratories

Environmental Program

The Technology Management System (TMS)

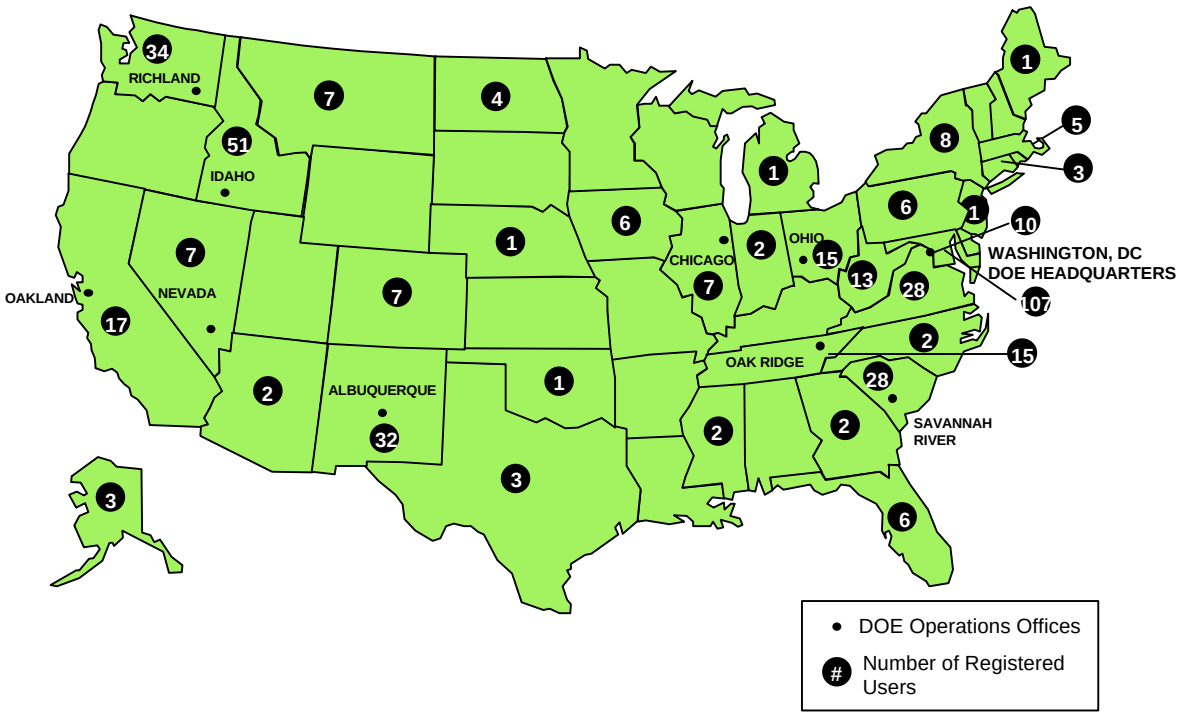
Technology Need

The Office of Environmental Management's (EM), Office of Science and Technology (OST) staff and management required a user-friendly information management system to handle the critical OST information in order to respond to numerous congressional requests for information. To address that need the Information Inventory data base project began during FY96 in the Information for Decisions Program (IFD). Its purpose was to serve as a project, program, and office-level management tool.

During the course of FY97, the Information Inventory was populated by the OST program staff both at headquarters and in the field. As a result of the effort to populate the inventory the initial requirements for the Technology Management System (TMS) was established. The requirements were to collect data, review and correct data, maintain data, and communicate / report data. The driver behind these requirements (beyond good management practice) was a request from Congress for information on OST programs. TMS now exists as a combination of a traditional information management project and a set of information management functions built in response to the Congressional request.

TMS Geographical Profile - Registered Users

as of 6/98



Objective

TMS is designed to deliver data to users who access the system.

TMS provides a response to a specific driver from a single current source thereby providing consistent and valid input while still allowing data ownership to remain with the OST programs. This approach also offers economies of scale and elimination of redundant efforts.

Project Description

TMS has captured OST's historical information and provides the ability to improve on it while simultaneously capturing data for the current fiscal year as well as future projections. Each data collection effort is designed in response to the requirements of a specific driver and adheres to the hardware and software capabilities of the OST program.

Whenever data is entered or edited, concise attribution is given to the individual entering or editing it. He/she is identified by name, date and time of entry, and the computer from which it was entered. This is accomplished through the registration process and the use of personal passwords to enter the system. Data authorship attribution cannot be circumvented.

TMS provides appropriate levels of security for data entry, data editing, data review, and data reporting. A user registers when entering TMS thereby setting up their user profile. Once a user is registered they will be able to login to the system. An initial TMS login provides a user with basic clearance. A user with basic clearance is only allowed access to the information contained in TMS for general purposes. Beyond the basic clearance level is a parameter set which provides an unlimited number of clearance levels. Each level provides specific access to the data for specific purposes. A clearance level is granted by providing a password relevant to the clearance level. Entering this password will allow the user to complete his or her individual activity necessitated by the program for which they are responsible.

Advantages

TMS has been developed based on standards which allow the system to be coordinated with OST operation requirements. Yet, the fundamental design of TMS is sufficiently flexible to respond to changes in program direction, focus, or even management structure. Consistency with respect to information systems and the data they provide is an ongoing challenge within an organization which has both Headquarters and Field Office components. TMS uses the INTERNET and its WWW technologies to create a solution to data access and sharing paradigms within OST. A primary advantage of using the INTERNET is that the user who provides the information, whether in the field or at Headquarters, continues to be responsible for ownership of the data once it is entered into TMS.

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